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# **AWS Management Console**

## **Getting Started Guide**

**Version 1.0**



## **AWS Management Console: Getting Started Guide**

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# Working with the AWS Management Console

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Welcome to the AWS Management Console. This guide provides a short introduction to working with the console. To learn how to work with individual services in the console, see [AWS Documentation](#).

## Topics

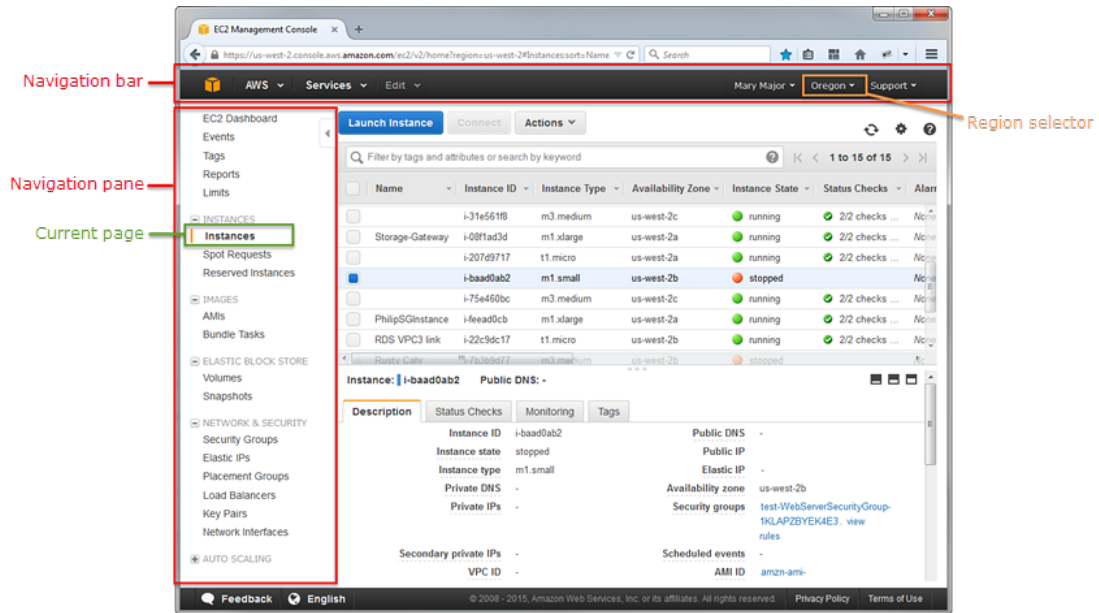
- [What is the AWS Management Console? \(p. 1\)](#)
- [Getting Started with a Service \(p. 2\)](#)
- [Adding and Removing Shortcuts \(p. 3\)](#)
- [Selecting a Region \(p. 4\)](#)
- [Changing Your Password \(p. 4\)](#)
- [Getting Billing Information \(p. 5\)](#)
- [Using the Device of Your Choice \(p. 5\)](#)
- [Troubleshooting \(p. 6\)](#)

## What is the AWS Management Console?

The AWS Management Console is a web application for managing Amazon Web Services. The console provides an intuitive user interface for performing many AWS tasks, such as working with Amazon S3 buckets, launching and connecting to Amazon EC2 instances, setting Amazon CloudWatch alarms, and so on. Each service has its own console, which you can access from the AWS Management Console. The console also provides information about your account and about billing.

# AWS Management Console Getting Started Guide

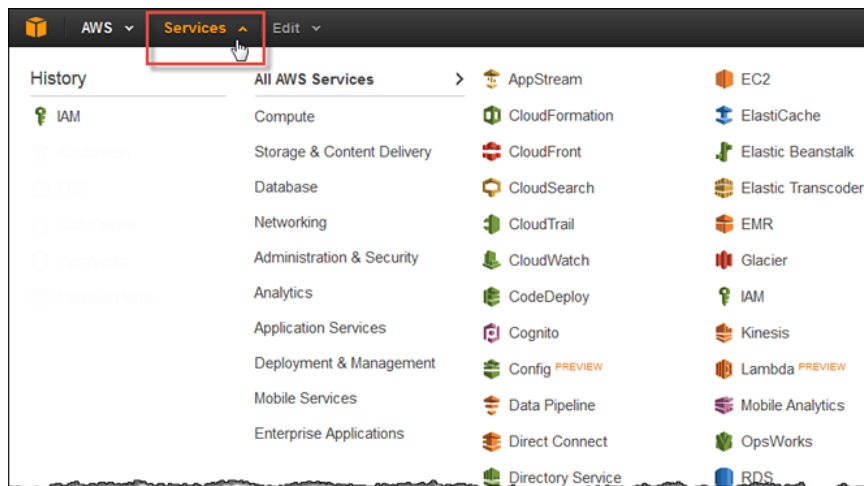
## Getting Started with a Service



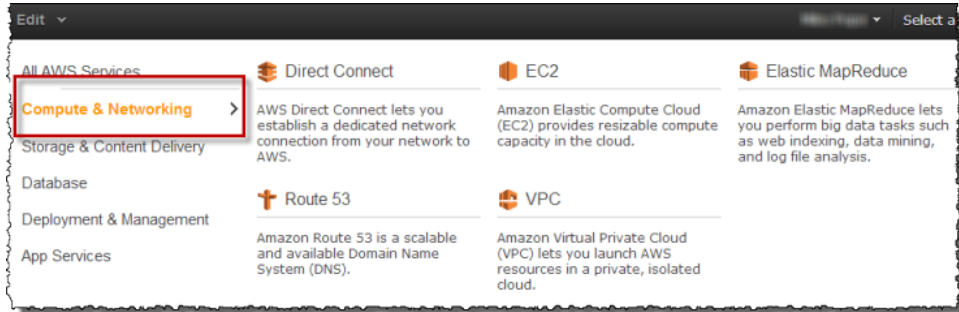
## Getting Started with a Service

To access a service in the console

1. Click **Services** to open a full list of services.



2. Click or hover over a category, such as Compute & Networking, to see a list of available services in the category.



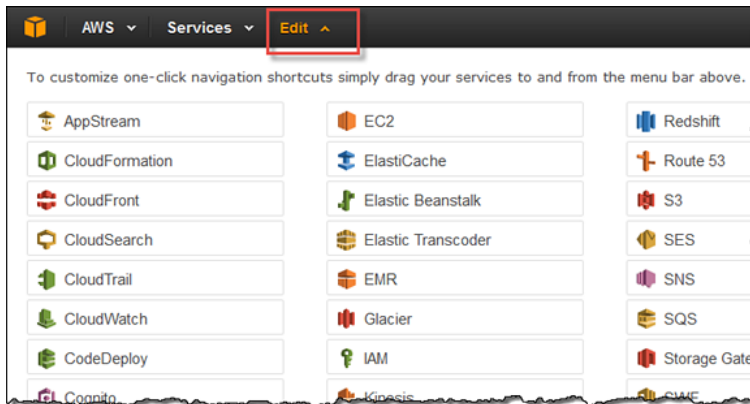
3. Click a service name to open the console for that service.

## Adding and Removing Shortcuts

You can add shortcuts for the consoles you use most.

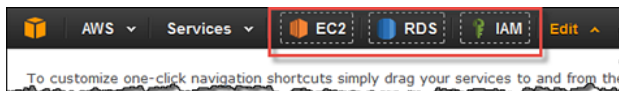
### To add a shortcut

1. On the navigation bar, click **Edit**.



2. Drag a service from the menu to the navigation bar.

You can add more shortcuts and drop them onto the navigation bar in any order that you want.



### To remove a shortcut

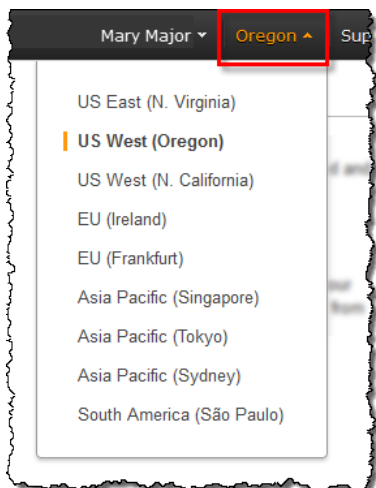
- Click **Edit** and then drag the shortcut off the navigation bar.

## Selecting a Region

For many services, you can select a region that specifies where your resources are managed. You do not select a region for the AWS Management Console or for some services, such as AWS Identity and Access Management (IAM).

### To select a region

1. In the AWS Management Console, click a service to go to that service's console.
2. In the navigation bar, click the name of the currently selected region.



When you've selected a region, that region becomes the default in the console.

### Note

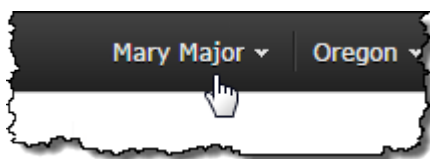
If you have created AWS resources that are in a specific region (such as an Amazon EC2 instance), but you don't see those resources in the console, the console might be displaying resources from a different region. Use the **Select a Region** list to see instances in a specific region.

## Changing Your Password

You can change your AWS account password from the console.

### To change your password:

1. In the navigation bar, click your account name.



2. Choose **Security Credentials**.

3. The page you see varies with the type of account you used to sign in. Follow the console instructions to get to the page for changing your password.
4. Enter your current password once and your new password twice.

The new password must be at least 8 characters long and must include a symbol, a number, an uppercase letter, and a lowercase letter.

5. When you've completed the password form, click **Change Password** or **Save changes**.

## Getting Billing Information

You can get information about your AWS charges from the console.

### To get your billing information

1. In the navigation bar, click the list under your account name.
2. Select **Billing & Cost Management**.
3. You'll arrive at the AWS Billing and Cost Management console, where you'll find a summary and a breakdown of your monthly spending. To learn more, see the [AWS Billing and Cost Management User Guide](#).

## Using the Device of Your Choice

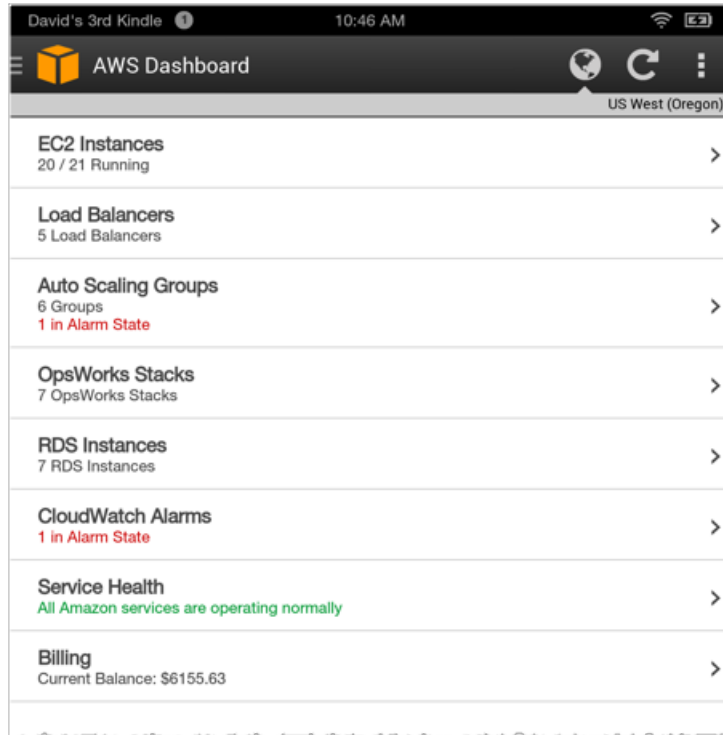
The AWS Management Console has been designed to work on tablets as well as other kinds of devices:

- Horizontal and vertical space is maximized to show more on your screen.
- Buttons and selectors are larger for a better touch experience.

The AWS Management Console is also available as an app for Android and iOS. This app provides mobile-relevant tasks that are a good companion to the full web experience. For example, you can easily view and manage your existing Amazon EC2 instances and Amazon CloudWatch alarms from your phone.

Here's what the Android app looks like running on a Kindle Fire HDX 7":





You can download the AWS Console mobile app from [Amazon Appstore](#), [Google Play](#), or [iTunes](#).

## Troubleshooting

### Fix Page Load Issues with Internet Explorer 11

If you use the AWS Management Console with Internet Explorer 11, the browser might fail to load some pages of the console. This is a problem related to Internet Explorer's Compatibility View. To address this issue, in Internet Explorer, open **Compatibility View Settings** and disable **Display intranet sites in Compatibility View**.

For more information, see [Fix site display problems with Compatibility View](#).

# Working with Resource Groups

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You can maximize your effectiveness with AWS offerings by working with *resource groups*. This guide provides a short introduction to creating and managing resource groups in the AWS Management Console. To learn more about the AWS Management Console in general, see [Working with the AWS Management Console \(p. 1\)](#).

## Topics

- [What Are Resource Groups? \(p. 7\)](#)
- [Obtaining Permissions for Resource Groups \(p. 9\)](#)
- [Creating a Resource Group \(p. 11\)](#)
- [Supported Resources \(p. 13\)](#)
- [Accessing a Resource Group \(p. 14\)](#)
- [Managing Resources \(p. 15\)](#)
- [Managing Resource Groups \(p. 16\)](#)

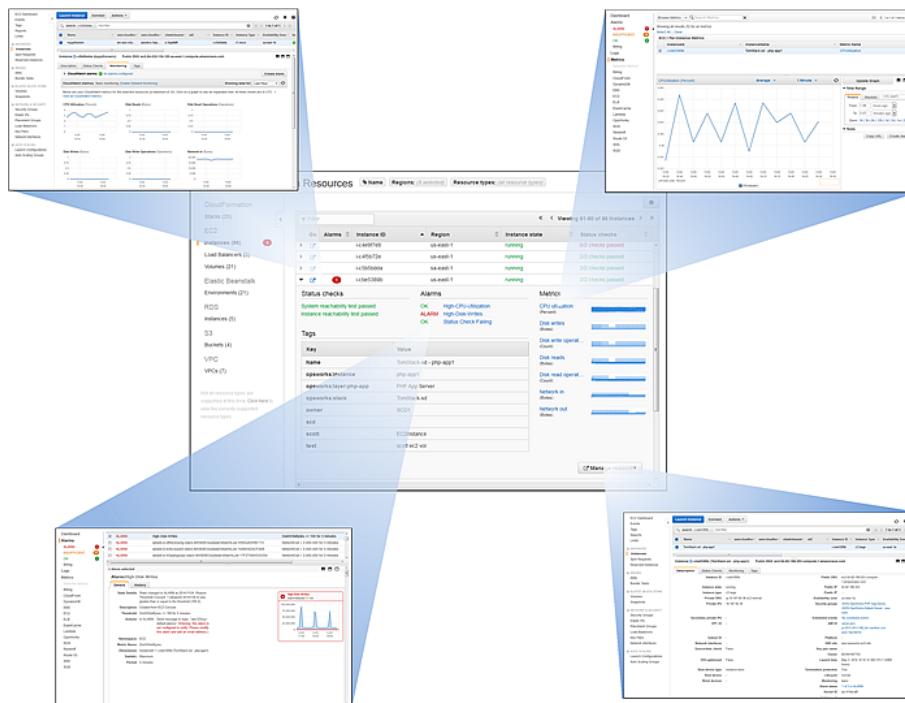
## What Are Resource Groups?

In Amazon Web Services, a *resource* is an entity that you can work with, such as an Amazon Elastic Compute Cloud (Amazon EC2) instance, an AWS CloudFormation stack, an Amazon Simple Storage Service (Amazon S3) bucket, and so on. If you oversee more than one of these resources, you might find it useful to manage them as a group rather than move from one AWS service to another for each task.

Resource Groups helps you do just that. By default, the AWS Management Console is organized by AWS service. But with the Resource Groups tool, you can create a custom console that organizes and consolidates the information you need based on your project and the resources you use. If you manage resources in multiple regions, you can create a resource group to view resources from different regions on the same screen.

Resource Groups combines information about multiple resources, such as metrics, alarms, and configuration details, on a single screen. If you need more detailed information or to change a setting for a given resource, clicking a link takes you to the page you need, as shown in the following illustration.

## AWS Management Console Getting Started Guide How Resource Groups Work



For example, let's say you are developing a web application, and you are maintaining separate sets of resources for your alpha, beta, and release environments. Each version runs on Amazon EC2 with an Amazon Elastic Block Store storage volume. You use Elastic Load Balancing to manage traffic and Amazon Route 53 to manage your domain. Without the Resource Groups tool, you might have to access four different consoles just to check the health and status of your services or modify the settings for one version of your application.

With the Resource Groups tool, you use a single page to view and manage your resources. For example, let's say you use the tool to create a resource group for each version—alpha, beta, and release—of your application. To check your resources for the alpha version of your application and find out if any CloudWatch alarms have been triggered, you simply open your resource group and view the consolidated information on your resource group page. To make changes to a specific resource, you click the appropriate links on your resource group page to quickly access the service console that has the controls and settings you need.

As other examples, you could also use the Resources Groups tool for the following types of projects:

- A blog that has different phases, such as development, staging, and production
- Projects managed by multiple departments or individuals
- A set of AWS resources that you use together for a common project or that you want to manage or monitor as a group

## How Resource Groups Work

A resource group is a collection of resources that share one or more *tags* or portions of tags. To create a resource group, you simply identify the tags that contain the items that members of the group should have in common.

If you or your administrator uses the AWS Identity and Access Management (IAM) service to create multiple users in the same account, those users have their own individual resource groups, which are not visible to other users. However, each user can share a resource group with others in the same account

by sharing a URL, which lets another user create a resource group with the same parameters. For information on creating IAM users, see [Creating an IAM User](#) in the *IAM User Guide*. For information on sharing resources, see [Sharing a Resource Group](#) (p. 17).

The tags themselves function like properties of a resource, so they are shared across the entire account. That way, users in a department or business unit can draw from a common vocabulary (tags) within the department or business account to create resource groups that are relevant to their own roles and responsibilities. Having a common pool of tags also means that when users [share a resource group](#) (p. 17), they don't have to worry about missing or conflicting tag information.

## How Tagging Works

Tags are words or phrases that act as metadata for organizing your AWS resources. With most AWS resources, you have the option of adding tags when you create the resource, whether it's an Amazon EC2 instance, an Amazon S3 bucket, or another type of resource. However, you can also add tags to multiple resources at once by using Tag Editor. You simply search for resources of various types and then add, remove, or replace tags for the resources in your search results.

For more about Tag Editor, see [Working with Tag Editor](#) (p. 19) in this guide. For more information about tagging, see [Tag Basics](#) in the *Amazon EC2 User Guide for Linux Instances*.

## Obtaining Permissions for Resource Groups

To make full use of Resource Groups and Tag Editor, you might need additional permissions to tag resources as well as to see all of a resource's tag keys and values. These permissions fall into two categories:

- Permissions for individual services so that you can tag resources from those services and include them in resource groups
- Permissions that are required to use the Resource Groups and Tag Editor consoles

If you need additional permissions, contact your administrator and request the permissions you need.

If you are an administrator, you can provide permissions for your users by creating policies through the AWS Identity and Access Management (AWS IAM) service. You first create IAM users or groups and then apply the policies with the permissions they need. For general information about creating and attaching IAM policies, see [Managing IAM Policies](#).

### Permissions for Individual Services

As explained in [How Resource Groups Work](#) (p. 8), each resource group represents a collection of resources that share one or more tag keys or values. In order to add tags to a resource, you need the necessary permissions for the service that the resource belongs to. For example, if you want to tag Amazon EC2 instances, your administrator must give you permissions to the tagging actions in that service's API, such as those listed in the [Amazon EC2 user guide](#).

In addition, to make full use of the Resource Groups feature, you need other permissions that allow you to access a service's console and interact with the resources there. For examples of such policies for Amazon EC2, see [Example Policies for Working in the Amazon EC2 Console](#) in the *Amazon EC2 User Guide for Linux Instances*.

## Permissions for Using the Resource Groups and Tag Editor Consoles

If you're an administrator, you can use the IAM service to create users and groups and create and attach policies that provide access to Resource Groups and Tag Editor. For information about creating and working with users and groups, see [IAM Users and Groups](#) in the *IAM User Guide* guide.

Once you have created the users and groups that you need, you can create and attach policies that provide access to Resource Groups and Tag Editor.

### Using AWS Managed Policies for Resource Groups and Tag Editor

The easiest way to do this is to use one of the AWS managed policies found in the AWS Management Console. You'll find a full-access policy as well as a read-only policy for these services. For more information on managed IAM policies, see [Managed Policies and Inline Policies](#) in the *IAM User Guide* guide.

#### To apply a Resource Groups and Tag Editor policy to an IAM user or group

1. Sign in to the Identity and Access Management (IAM) console at <https://console.aws.amazon.com/iam/>.
2. In the navigation pane, click **Users** or **Groups**, depending on how you want to apply the policy.
3. In the list click the user name or the group name that will receive the new policy.
4. Under Permissions, click **Attach Policy**.
5. In the **Policy Type** search box, start typing **ResourceGroupsandTagEditor** to display the Resource Groups and Tag Editor policies.
6. Select the check box for the desired policy:
  - **ResourceGroupsandTagEditorReadOnlyAccess** allows users to access and use Resource Groups and Tag Editor but does not allow them to edit tags in the Tag Editor.
  - **ResourceGroupsandTagEditorFullAccess** allows users complete use of all Resource Groups and Tag Editor features.
7. Click **Attach Policy**.

### Creating Your Own IAM Policies for Resource Groups and Tag Editor

If the built-in IAM policies for Resource Groups and Tag Editor do not meet your needs, you can create your own. For information about creating IAM policies, see [Overview of IAM Policies](#). Then use the following examples of IAM policies as a guide to creating the policies you need.

The `tag:getResources` permission is required to list resources that share a particular tag, such as when viewing a Resource Group or searching for resources in Tag Editor. You could grant this permission by using a policy like the following:

```
{
  "Version" : "2012-10-17",
  "Statement" : [{
    "Effect" : "Allow",
    "Action" : "tag:getResources",
    "Resource" : "*"
  }]
}
```

Additional permissions are required to get full use of the Resource Groups and Tag Editors consoles. The `tag:getTagKeys` and `tag:getTagValues` permissions allow you to see existing tag keys and values for resources in your account. You can grant both permissions by using a policy like the following:

```
{
  "Version" : "2012-10-17",
  "Statement" : [{
    "Effect" : "Allow",
    "Action" : [
      "tag:getTagKeys",
      "tag:getTagValues"
    ],
    "Resource" : "*"
  }]
}
```

To use these consoles to add and remove tags, you need the permissions in the following policy:

```
{
  "Version" : "2012-10-17",
  "Statement" : [{
    "Effect" : "Allow",
    "Action" : [
      "tag:addResourceTags",
      "tag:removeResourceTags"
    ],
    "Resource" : "*"
  }]
}
```

Finally, the following policy ensures that users have access to all features of Resource Groups and Tag Editor.

```
{
  "Version" : "2012-10-17",
  "Statement" : [{
    "Effect" : "Allow",
    "Action" : "tag:*",
    "Resource" : "*"
  }]
}
```

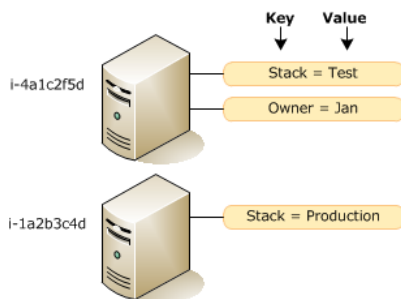
## Creating a Resource Group

To create a resource group, you tag resources (if you have not already done so) and then create a view of resources that have common tags or common strings in those tags. You can create your own custom tags or use tags created by others in your same account. You also can use the tags that AWS automatically creates, such as the stack name in AWS CloudFormation. To use Tag Editor to add, remove, and manage tags, see [Working with Tag Editor \(p. 19\)](#). For a list of ways to tag resources within their respective services, see [Applying Tags](#).

Every tag consists of a key and a value. In search engine terms, adding values is like searching for them with the OR operator (all items found are included). But adding keys is like searching for them with AND

(only items with all keys are included). As a result, adding more values to each tag key that you specify can increase the size of your resource group, but adding more keys might reduce the group size.

For example, suppose you have an account with only two resources, a pair of Amazon EC2 instances. To each instance you assign a tag with the key name **Stack**. One of the stack keys has the value **Production** and the other has the value **Test**. One of the instances also has a tag with the key name **Owner** and the value **Jan**.



If you create a resource group with the **Stack** key and both **Production** and **Test** values, your group will have two members. On the other hand, if you then add the **Owner** key to your group definition, your group will shrink to one, because only one instance has that key.

You can also create groups based on a portion of a tag value. For example, if you have alpha, beta, and release versions of a project, you might have a naming scheme for each resource's name key that includes multiple points of information. For example, you might have several Amazon S3 buckets whose Name keys have values like **John Alpha Bucket**, **John Beta Bucket**, **Mary Alpha Bucket**, and so on. To create a resource group for your alpha version, you would specify only tags whose value includes **Alpha**. Or you could create a group of all buckets by specifying that the tag value include **Bucket**.

Not every AWS resource can be included in a resource group. For a list of currently supported resources, see [Supported Resources \(p. 13\)](#).

To create a resource group, you begin by searching for tags or tag strings that your group will have in common. You perform this search either on the **Create a resource group** page or with Tag Editor.

### To create a resource group

1. Sign in to the AWS Management Console. In the navigation bar, click **AWS** and select **Create a Resource Group**. Alternatively, you can navigate to the console home page at <https://console.aws.amazon.com/console/default> and click **Create a Group** there.
2. On the **Create a resource group** page, type a name for your group in **Group name**.
3. For **Tags**, select the name of a tag key in the first box. You can type in the box to search for a key based on characters it contains.
4. (Optional) Click the box next to that and do any of the following:
  - Leave the box empty to find tags with the specified key and any value.
  - Select **Empty value** to find tags with the specified key but no value.
  - Type one or more characters to find the values that you are looking for. Select a value from the list to find an exact match or select the **Contains** option to find values that contain the characters that you typed.

If you don't see any values listed, you might not have permissions to view available tags. In that case, you can simply type in a complete value and press **Enter** to start searching.

- Click the **x** next to an item that you added to remove it from the search criteria.

You can repeat any of the above to search for multiple values for each tag key. Resources whose values have any of the criteria for that particular key will be included in the resource group. The searches are case sensitive.

For more information on tag keys and values, see [What Is a Tag?](#)

**Note**

Before a key and its values appear in the autocomplete list, they must have been applied to at least one resource in the current account. If you don't see a tag that you just applied to a resource, try refreshing your browser window.

If the autocomplete list still doesn't work, you may need to contact your administrator to get the necessary permissions. For more information, see [Obtaining Permissions for Resource Groups \(p. 9\)](#)

5. (Optional) To further refine your group, click **Add a tag key** to specify more tag keys and values. The group will contain only those resources that have all the specified tags, so the more tags you specify, the fewer resources your group will contain. If you change your mind, click **Remove** next to any specified key and value.
6. (Optional) For **Regions**, click the box and select the regions that you want to include in your group. Repeat for as many regions as desired. To remove a region, click the **x** by its name. Leave the box empty to include all regions.
7. (Optional) For **Resource types**, click the box and select the kind of resources that you want to include in your group. Repeat for as many resource types as desired. To remove a resource type, click the **x** by its name. Leave the box empty to include all resource types.
8. (Optional) When you have the desired settings, click **Preview** to see which resources are included based on your current settings. If desired, change any of the previous settings and click **Preview** again.
9. When you are satisfied with your group, click **Save**.

If you need to change the settings later, see [Modifying What Resources Are in a Group \(p. 16\)](#).

**To create a resource group from Tag Editor search results**

1. In Tag Editor, [search for the resources \(p. 22\)](#) that you want in your group. You must include at least one tag key in your search.
2. When the search is complete, click **View as resource group**.
3. In the space provided, type a name for your resource group.
4. (Optional) Modify the settings for the resource group as explained in the preceding procedure. To see your changes, click **Preview**.
5. When you are satisfied with your group, click **Save**.

## Supported Resources

Resource Groups supports resources associated with the following AWS offerings.

Service	Resource(s)
AWS CloudFormation	<ul style="list-style-type: none"><li>• Stack</li></ul>
AWS Elastic Beanstalk	<ul style="list-style-type: none"><li>• Environment</li></ul>



Service	Resource(s)
Amazon Elastic Compute Cloud (Amazon EC2)	<ul style="list-style-type: none"><li>• Instance</li><li>• Load balancer</li><li>• Security group</li><li>• Snapshot</li><li>• Volume</li></ul>
Amazon Elastic MapReduce	<ul style="list-style-type: none"><li>• Cluster</li></ul>
Amazon ElastiCache	<ul style="list-style-type: none"><li>• Cache cluster</li><li>• Snapshot</li></ul>
Amazon Glacier	<ul style="list-style-type: none"><li>• Vault</li></ul>
Amazon Kinesis	<ul style="list-style-type: none"><li>• Stream</li></ul>
Amazon Relational Database Service (Amazon RDS)	<ul style="list-style-type: none"><li>• Database instance</li><li>• Snapshot</li></ul>
Amazon Redshift	<ul style="list-style-type: none"><li>• Cluster</li></ul>
Amazon Route 53	<ul style="list-style-type: none"><li>• Domain</li><li>• Health check</li><li>• Hosted zone</li></ul>
Amazon Simple Storage Service (Amazon S3)	<ul style="list-style-type: none"><li>• Bucket</li></ul>
Amazon Virtual Private Cloud	<ul style="list-style-type: none"><li>• VPC</li></ul>

## Accessing a Resource Group

To view and work with resource groups, use the AWS Management Console to navigate to one of your resource groups. The console provides two ways to open a group.

### To access a resource group from the console Amazon Web Services page

1. In the AWS Management Console, open the **Amazon Web Services** console home page at <https://console.aws.amazon.com/console/default>.

- On the right side of the page, under **Resource Groups**, click the name of a group. If necessary, use the navigation buttons following the list to find the group that you want.

### To access a resource group from any console page

- From any AWS Management Console page, click **AWS** in the navigation bar and select the group that you want.

To modify what you see on a resource group page, see [Customizing Your Resource Group Display \(p. 17\)](#).

## Managing Resources

Resource groups are designed to provide information about your resources at a glance. You can monitor what is happening with your resources and use the links to take corrective or other actions.

### Getting Information About a Resource

Resource Groups displays detailed information about your resources. It also uses a red icon to indicate when a CloudWatch metric has triggered an alarm. This icon appears in several places:

- Next to the resource group name in the main AWS Management Console home page
- Next to each resource type in the resource group's navigation pane
- In each row of the resource group table

The screenshot shows the AWS Management Console interface for a resource group named "DocShare Production Resources". The page displays a list of EC2 instances with columns for Name, Instance ID, Region, Instance state, and Status checks. A red icon is visible next to the instance ID "i-cbe5389b". Below the table, there are sections for Status checks, Alarms, Metrics, and Tags.

Go	Alarms	Instance ID	Region	Instance state	Status checks
<a href="#">Go</a>		i-c3f5e7bf	us-east-1	running	2/2 checks passed
<a href="#">Go</a>		i-c4e9f7e8	us-east-1	running	0/2 checks passed
<a href="#">Go</a>		i-c4f5b72e	us-east-1	running	2/2 checks passed
<a href="#">Go</a>	<span style="color: red;">1</span>	i-cbe5389b	us-east-1	running	2/2 checks passed

**Status checks**

- System reachability test passed
- Instance reachability test passed

**Alarms**

- OK High-CPU-Utilization
- ALARM High-Disk-Writes
- OK Status Check Failing

**Metrics**

- CPU utilization (Percent)
- Disk writes (Bytes)
- Disk write operat... (Count)
- Disk reads (Bytes)
- Disk read operat... (Count)
- Network in (Bytes)
- Network out (Bytes)

**Tags**

Key	Value
Name	TomStack-sd - php-app1
opworks:instance	php-app1
opworks:layer:php-app	PHP App Server
opworks:stack	TomStack-sd
owner	SCD1
scd	
scott	EC2Instance
test	scott ec2 vol

[Manage resource](#)

### To get detailed information about a resource

1. Open an existing resource group, as explained in [Accessing a Resource Group \(p. 14\)](#).
2. In the navigation pane, select the desired resource type.
3. In the resource table, locate the resource that you want to monitor.

#### Tip


To simplify locating the desired resource, filter and otherwise customize the table of resources, as explained in [Customizing Your Resource Group Display \(p. 17\)](#).

4. Click the triangle to expand the row for the desired resource to get more information.

## Taking Action on a Resource

You might need to act on the information that you see in the resource group table. For example, if an Amazon EC2 instance has triggered a CloudWatch alarm, you might want to go to the CloudWatch console for more details or to the Amazon EC2 console to correct a problem. Resource Groups makes it easy to get to the controls that you need quickly.

### To take action on a resource

1. Display detail for the selected resource, as explained in [Getting Information About a Resource \(p. 15\)](#).
2. Do one of the following:
  - To go to the console that controls the entire resource, click the blue manage resource icon () in the resource's table row, or click **Manage resource** in the details pane.
  - To take action on a CloudWatch alarm, click the link for the alarm to open the CloudWatch console.

## Managing Resource Groups

At any time you can modify the settings of your resource groups to change what resources appear. You can also customize the display so that you can see the information that you need most.


### Topics

- [Modifying What Resources Are in a Group \(p. 16\)](#)
- [Customizing Your Resource Group Display \(p. 17\)](#)
- [Updating Your Resource Group Display \(p. 17\)](#)
- [Sharing a Resource Group \(p. 17\)](#)
- [Deleting a Resource Group \(p. 18\)](#)

## Modifying What Resources Are in a Group

If you need to change what resources the group includes or other group settings, you can do so at any time.

### To modify the composition of a resource group

1. Open an existing resource group, as explained in [Accessing a Resource Group \(p. 14\)](#).
2. In the resource group page, click the pencil icon ()

3. Modify any of the settings (name, resource types, regions, tags) and click **Preview**. Repeat until you are satisfied with your group. Then click **Save**.

## Customizing Your Resource Group Display

You can change the appearance of your resource group to show the information that you need most.

### To customize the data displayed in a resource group page

1. Select and open a group, as explained in [Accessing a Resource Group \(p. 14\)](#).
2. Do any of the following:
  - To determine which type of resource is displayed, click the resource type in the navigation pane.
  - To limit the display to resources containing a keyword, type the keyword in the search box above the table. For example, you could type `stopped` to see all stopped instances or `us-east-1` to see only instances for that region.



- To sort the list by any column, click the column heading name. To reverse the sort order, click the name again.
- To change the width of a table column, drag the divider between the column headings.
- To customize what columns appear in the table, click the cog icon (⚙️) above the table and select or deselect the type of data that appears. You can add or remove columns for the types of information available for a resource (listed under **Properties**) or for individual tags (listed under **Tag Keys**).

Selecting or deselecting an item in the list toggles a corresponding table column. To search for and limit what items appear in the list, type a full or partial keyword or words in the box at the top.

## Updating Your Resource Group Display

As you create or remove resources or apply or modify the tags your resources use, you might need to update the information that you see on a resource group page.

### To update the information displayed on a resource group page

- Click the refresh icon (🔄) before the list of resources.

## Sharing a Resource Group

If your account consists of multiple IAM users, each of those users has his own resource groups, which are not visible to other users. However, each user can share the settings that make up a resource group

with other users in the same account. The share feature creates a URL that takes a user to the **Create Resource Group** page with the settings already entered in the form. The recipients can then save a new resource group for their own use.

For information on creating users, see [Creating an IAM User](#) in *IAM User Guide*.

### To share a resource group

1. Select and open a group, as explained in [Accessing a Resource Group \(p. 14\)](#).
2. Click the share icon above the resource table.




3. Copy the URL that appears on the page, and send it to other users in your AWS account.

## Deleting a Resource Group

You can permanently remove any resource groups that you no longer need.

### To delete a resource group

1. Select and open a group, as explained in [Accessing a Resource Group \(p. 14\)](#).
2. On the resource group page, click the pencil icon (  ) next to the group name.
3. Click **Delete** and then **Yes, Delete** to confirm.

#### Note

Deleting a resource group has no effect on the resources within the group.

## Working with Tag Editor

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Tags are words or phrases that act as metadata for identifying and organizing your AWS resources. Each resource can have up to 10 tags, each of which consists of a key and a value. For more about tagging, see [What Is a Tag?](#) in the *AWS Billing and Cost Management User Guide*.

You can add tags to resources when you create the resource or add, change, or remove those tags one resource at a time within each resource's console. To add to multiple resources at once, you need to use Tag Editor. With Tag Editor, you search for the resources you want to tag, and then add, remove, or edit tags for the resources in your search results.

Not all resources can have tags applied. To see if a resource supports tagging, consult the documentation for that resource's service.

### Topics

- [Obtaining Permissions for Tagging](#) (p. 19)
- [Searching for Resources to Tag](#) (p. 22)
- [Finding Untagged Resources](#) (p. 23)
- [Customizing Tag Search Results](#) (p. 23)
- [Tagging Resources](#) (p. 24)
- [Scenario: Implementing a New Tagging Strategy](#) (p. 25)

## Obtaining Permissions for Tagging

To make full use of Resource Groups and Tag Editor, you might need additional permissions to tag resources as well as to see all of a resource's tag keys and values. These permissions fall into two categories:

- Permissions for individual services so that you can tag resources from those services and include them in resource groups
- Permissions that are required to use the Resource Groups and Tag Editor consoles

If you need additional permissions, contact your administrator and request the permissions you need.

If you are an administrator, you can provide permissions for your users by creating policies through the AWS Identity and Access Management (AWS IAM) service. You first create IAM users or groups and

then apply the policies with the permissions they need. For general information about creating and attaching IAM policies, see [Managing IAM Policies](#).

## Permissions for Individual Services

As explained in [How Resource Groups Work \(p. 8\)](#), each resource group represents a collection of resources that share one or more tag keys or values. In order to add tags to a resource, you need the necessary permissions for the service that the resource belongs to. For example, if you want to tag Amazon EC2 instances, your administrator must give you permissions to the tagging actions in that service's API, such as those listed in the [Amazon EC2 user guide](#).

In addition, to make full use of the Resource Groups feature, you need other permissions that allow you to access a service's console and interact with the resources there. For examples of such policies for Amazon EC2, see [Example Policies for Working in the Amazon EC2 Console](#) in the *Amazon EC2 User Guide for Linux Instances*.

## Permissions for Using the Resource Groups and Tag Editor Consoles

If you're an administrator, you can use the IAM service to create users and groups and create and attach policies that provide access to Resource Groups and Tag Editor. For information about creating and working with users and groups, see [IAM Users and Groups](#) in the *IAM User Guide* guide.

Once you have created the users and groups that you need, you can create and attach policies that provide access to Resource Groups and Tag Editor.

## Using AWS Managed Policies for Resource Groups and Tag Editor

The easiest way to do this is to use one of the AWS managed policies found in the AWS Management Console. You'll find a full-access policy as well as a read-only policy for these services. For more information on managed IAM policies, see [Managed Policies and Inline Policies](#) in the *IAM User Guide* guide.

### To apply a Resource Groups and Tag Editor policy to an IAM user or group

1. Sign in to the Identity and Access Management (IAM) console at <https://console.aws.amazon.com/iam/>.
2. In the navigation pane, click **Users** or **Groups**, depending on how you want to apply the policy.
3. In the list click the user name or the group name that will receive the new policy.
4. Under Permissions, click **Attach Policy**.
5. In the **Policy Type** search box, start typing **ResourceGroupsandTagEditor** to display the Resource Groups and Tag Editor policies.
6. Select the check box for the desired policy:
  - **ResourceGroupsandTagEditorReadOnlyAccess** allows users to access and use Resource Groups and Tag Editor but does not allow them to edit tags in the Tag Editor.
  - **ResourceGroupsandTagEditorFullAccess** allows users complete use of all Resource Groups and Tag Editor features.
7. Click **Attach Policy**.

## Creating Your Own IAM Policies for Resource Groups and Tag Editor

If the built-in IAM policies for Resource Groups and Tag Editor do not meet your needs, you can create your own. For information about creating IAM policies, see [Overview of IAM Policies](#). Then use the following examples of IAM policies as a guide to creating the policies you need.

The `tag:getResources` permission is required to list resources that share a particular tag, such as when viewing a Resource Group or searching for resources in Tag Editor. You could grant this permission by using a policy like the following:

```
{
  "Version" : "2012-10-17",
  "Statement" : [{
    "Effect" : "Allow",
    "Action" : "tag:getResources",
    "Resource" : "*"
  }]
}
```

Additional permissions are required to get full use of the Resource Groups and Tag Editors consoles. The `tag:getTagKeys` and `tag:getTagValues` permissions allow you to see existing tag keys and values for resources in your account. You can grant both permissions by using a policy like the following:

```
{
  "Version" : "2012-10-17",
  "Statement" : [{
    "Effect" : "Allow",
    "Action" : [
      "tag:getTagKeys",
      "tag:getTagValues"
    ],
    "Resource" : "*"
  }]
}
```

To use these consoles to add and remove tags, you need the permissions in the following policy:

```
{
  "Version" : "2012-10-17",
  "Statement" : [{
    "Effect" : "Allow",
    "Action" : [
      "tag:addResourceTags",
      "tag:removeResourceTags"
    ],
    "Resource" : "*"
  }]
}
```

Finally, the following policy ensures that users have access to all features of Resource Groups and Tag Editor.

```
{
  "Version" : "2012-10-17",
  "Statement" : [{
```



```
    "Effect" : "Allow",  
    "Action" : "tag:*",  
    "Resource" : "*" } ]  
}
```

## Searching for Resources to Tag

With Tag Editor, you can locate all the resources that are available for tagging.

### To search for resources to tag

1. Sign in to the AWS Management Console, click **AWS**, and then select **Tag Editor**. Alternatively, you can navigate to the console home page at <https://console.aws.amazon.com/console/default> and click **Tag Editor** there.
2. For **Regions**, click the box and select the regions you want to search in. Repeat for as many regions as you want. To remove a region, click the **x** by its name.
3. For **Resource types**, click the box and select the kind of resources that you want to locate. Repeat for as many resource types as needed. To remove a region or resource type, click the **x** by its name. To search for all resource types or all regions, select **All resource types**.
4. (Optional) To limit your search to resources already having certain tag keys or values, click the first **Tags** box and select the name of a tag key. Type in the box to search for a key based on characters it contains.
5. (Optional) Click the next box and do any of the following:
  - Leave the box empty to search for all resources with the specified key and any value.
  - Select **Not tagged** to search for resources that do *not* have the specified tag key.
  - Select **Empty value** to search for resources that have the specified tag key but no value.
  - Type one or more characters to find resources with the values that you are looking for. Select a value from the list to find an exact match or select the **Contains** option to find values that contain the characters that you typed.

If you don't see any values listed, you might not have permissions to view available tags. In that case, you can simply type in a complete value and press **Enter** to start searching.

- Click the **x** next to an item that you added to remove it from the search criteria.

You can add multiple values for each tag key. Doing so potentially increases the number of resources in the search results because the results include resources tagged with any of the selected values. The search is case sensitive.

#### Note

Before a key and its values appear in this list, they must have been applied to at least one resource in the current account. If you don't see a tag that you just applied to a resource, try refreshing your browser window.

6. (Optional) To further refine your group, click **Add a tag key** to specify more tag keys and values. The search results will contain only those resources that have all the specified tags, so the more tags you specify, the fewer resources it will find.
7. When you have the settings that you want, click **Find Resources**.

**Tip**

To create a resource group based on these search results, click **View as resource group**. For more information, see [To create a resource group from Tag Editor search results \(p. 13\)](#).

## Finding Untagged Resources

You might find it useful to know what resources in your account have yet to be tagged. You may also want to know what resources have tag keys but no tag values. You can use Tag Editor to find these resources.

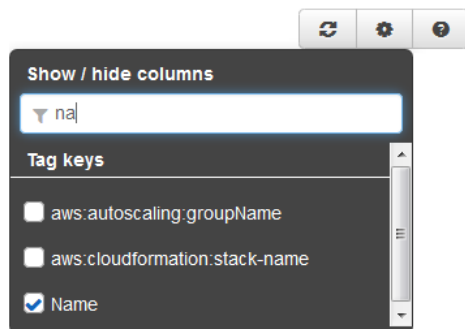
1. Sign into the AWS Management Console and open Tag Editor at <https://resources.console.aws.amazon.com/r/tags>.
2. For **Regions**, select the regions that you want to include.
3. For **Resource types**, select the resource types that you want to search for.
4. For **Tags**, select a tag key that you want to apply to resources that do not already have it.
5. In the next box, do either or both of the following, depending on your goal:
  - Choose **Not tagged** to find resources with no tags.
  - Choose **Empty value** to find resources that are tagged with your specified key but that have no tag value.
6. Choose **Find Resources** to have Tag Editor find all such resources and list them at the bottom of the page.
7. (Optional) Use any of the methods discussed in [Tagging Resources \(p. 24\)](#) to add tags to the resources in the search results.

## Customizing Tag Search Results

After completing a search, you can sort and filter the results of your tag search to find the tags and resources that you need to work with.

### To customize tag search results

- Do any of the following:
  - To limit the display to resources that contain a keyword, type the keyword in the search box above the table. For example, you could type `elasticbeanstalk` to see all resources whose ID indicates that they are associated with the Elastic Beanstalk service.
  - To sort the list by any column, click the column heading name. To reverse the sort order, click the name again.
  - To change the width of a table column, drag the divider between the column headings.
  - To add or remove columns of existing tag keys to the results, click the cog icon (⚙️) above the table and select or deselect the desired tag key, respectively. To search for and limit what items appear in the list, type a full or partial keyword or words in the box at the top.



## Tagging Resources

Once you have [located the resources \(p. 22\)](#) that you want to tag, you can add, remove, or edit the tags for all or some of your search results as a group.

To apply a completely new tag to one or more resources, you begin by creating a tag key.







### To create a new tag key

1. [Search for the resources \(p. 22\)](#) whose tags you want to manage.
2. Click **Create a new tag key**.
3. Type the name of your new key, and click **Add**. Repeat for as many tag keys that you want to create. Then click **Close**.

#### Note

The new tag key does not actually exist until a value for the new key is applied to a resource. A tag does not exist unless it is applied to a resource.

### To edit or apply tags for a single resource

1. [Search for the resources \(p. 22\)](#) whose tags you want to manage.
2. [Adjust the search results \(p. 23\)](#) table to make it easy to find the desired resource.
3. Do any of the following:
  - To add a tag to a resource, click the **+** () icon, enter a value, and click the check mark icon (). You can apply a tag to a resource without specifying a value.
  - To edit the tag value of a resource, click the pencil icon () by its value and edit the value. Click the check mark icon or press **Enter**.
  - To remove an existing tag value, click the **X** icon () next to the value.
  - To apply an existing tag key, click the cog icon () and select the key that you want, as explained in [Customizing Tag Search Results \(p. 23\)](#). Then click the **+** icon in the column for that key, type a new value, and either click the check mark icon or press **Enter**.
  - To identify a resource using resource properties or to modify a resource's tag in its own console, click the blue manage resource icon () icon, enter a value, and click the check mark icon in the resource's table row.

### To edit or apply tags for multiple resources

1. [Search for the resources \(p. 22\)](#) whose tags you want to manage.
2. [Adjust the search results \(p. 23\)](#) table to make it easy to find the desired resource.
3. Check the boxes for each resource whose tags you want to modify. To manage tags for all the resources in the list, click **Select All**.
4. Click **Edit tags for selected**. Modify the keys or values, and click **Apply**.
5. Repeat the preceding step as needed. Then click **Close**.

## Scenario: Implementing a New Tagging Strategy

Consider a situation where you have a medium to large working environment with multiple resources used by various employees. You decide to use tagging to help you organize and get better oversight of your account's resources. But how to proceed when there are dozens of resources to tag? Fortunately, Tag Editor can help simplify the process.

1. **Make a plan.**

Before you begin, sketch out a plan of the tag keys and values that will help you organize your resources. For example, you may want all resources to have tag keys like *Project*, *Cost Center*, and *Environment*. Remember, too, that each resource cannot have more than ten tags.

2. **Open Tag Editor.**

Sign into the AWS Management Console and open Tag Editor at <https://resources.console.aws.amazon.com/r/tags>.

3. **Find all resources in your account.**

For **Regions**, select all regions that apply. For **Resource types**, select **All resource types**. Leave both **Tags** boxes empty. For more information, see [Searching for Resources to Tag \(p. 22\)](#).

4. **Select all the found resources.**

The Tag Editor search results appear under **Edit tags**. When the list shows the resources that you want to tag, select the top check box to select all resources. Choose **Edit tags for selected**.

5. **Apply tag keys with empty elements.**

In **Add/Edit tags**, under **Add tags**, in the space provided, type the key name that you want to add, such as `Project`. Repeat for your other new keys, such as `Cost Center` and `Environment`. Choose **Apply changes**.

**Tip**

If any of your selected resources have reached the maximum of ten tags, a message will warn you before you choose **Apply changes**. You can pause the pointer over the number of affected resources in the message to see a pop-up list of the specific resources.

6. **Add values for each tag key.**

The next step is to add tag values that will help you distinguish individual resources that share tag keys. There are a couple of ways to do this depending on whether you plan on adding the same values to many resources or just a few.

- a. **Bulk add values.**

Start by clicking the check box at the top of the table again to clear all the check boxes. Then select individual check boxes for just those resources that need a specific tag value.

Choose **Edit tags for selected**. In **Add/edit tags**, under **Applied tags**, click in the **Value** column next to a tag key and type a new value. For example, you might add a billing code in the value for the Cost Center key or type `Production` for the Environment key.

Note that if the **Value** column shows **Multiple values**, you can still click in the table cell and type a new value. However, your new value will replace all the key's existing values for the selected resources.

When you're done, choose **Apply changes**.

b. **Add individual tag values.**

If you want each resource to have its own unique value, you can edit tag values right in the search results table. Start by choosing the cog icon above the table and selecting the check boxes for your new keys. To continue our example, you might select the check boxes for **Project**, **Cost Center**, and **Environment**. This makes your keys appear as columns in the search results table.

For a given resource, locate the column that displays the tag key whose value you want to edit. Choose the pencil icon and type the new value in the box. Press **Enter** to complete the editing.

7. Repeat [Step 6 \(p. 25\)](#) for other resources in your list.

# AWS Glossary

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For the latest AWS terminology, see the [AWS Glossary](#) in the *AWS General Reference*.